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27581	7590	08/18/2008	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MINNEAPOLIS, MN 55432-9924			JOHNSON III, HENRY M	
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/792,178

Filing Date: March 03, 2004

Appellant(s): FRANCISCHELLI ET AL.

Rudolph P. Hofmann
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 10, 2008 appealing from the Office action mailed January 9, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,733,281	NARDELLA	3-1998
5,334,193	NARDELLA	8-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 25-26 and 28-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nardella (5,733,281). Nardella discloses a method of tissue ablation comprising **positioning an electrode** (energy delivering electrode; Col. 4, lines 20-25, positioning is inherent for an ablation

operation), supplying electrical power (electrosurgical energy; Col. 6, lines 54-55), sensing with a sensor (acoustical detection element; Col. 2, lines 46-49) the vibration of the tissue and reducing/halting ("regulating", patented claim 3; power regulation element; col. 8:57-60) power when the vibration reaches a given value. The acoustic detection element may be a piezoelectric ceramic crystal (Col. 7, line 35) or a microphone (Col 3, line 4). The sensor of Nardella, be it the piezoelectric crystal or the microphone, senses vibration. It has no ability to differentiate between vibrations from multiple sources. Nardella teaches a feedback system that includes an acoustical detection element, e.g., an ultrasonic transducer, coupled to the surgical tool and the pulse regulation element for acoustically detecting the effects of energy on tissue, such as the generation of steam created during the heating process. The acoustical detection element preferably generates an acoustic output signal, and the power regulation element preferably regulates the application of power to the energy-delivering electrode in response to either the derivative output signal or the acoustic output signal. The term "acoustic" is intended to include any vibratory disturbance of any frequency in a selected fluid, such as air, and includes sonic and ultrasonic waves (Col. 2, lines 46-59). Nardella further discloses a power regulation element in circuit with the surgical tool and the acoustical detection element for regulating the power supplied to the energy-delivering electrode in response to the acoustic output (detected vibration) signal (Col. 3, lines 18-23).

Regarding claims 29 and 30, Nardella discloses an output device (Analyzer, Fig. 2, # 130) and an indicator signal (Fig. 2, # 132, signal to RF generator).

Regarding claim 32, PVDF is a piezoelectric polymer (Col. 7, line 36).

Regarding claim 33, sensor (Fig. 2, # 20) is integrated with the electrode (Fig. 2, # 12).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nardella (5,733,281) in view of Nardella (5,334,193). Nardella ('281) incorporates by reference in Col. 9,

line 56 Nardella (5,334,193), which discloses impedance feedback control of fluid delivery to treated tissue (see '193 Abstract).

(10) Response to Argument

The Applicant argues that Nardella does not disclose sensing vibration in tissue being ablated, the **vibration being self-generated**. The Applicant requires the vibration to be a result of the ablation energy.

Nardella discloses an ablation method using vibration feedback. The source of the vibration inherently includes that that is self-generated by the ablation energy and not merely that emitted by Nardella's transducer. Nardella detects the vibration in tissue such as the generation of steam created during the heating process (Col. 2, lines 48-55). Clearly the vibration is from the application of ablation energy. While Nardella's transducers emit a pulse and the tissue reflects that pulse which is sensed, self-generated vibrations due to ablation are also present and will be detected. The sensors of Nardella have no way to distinguish a specific source of vibrations.

Nardella also teach a microphone to detect sound at the surgical site and converting the sound to electrical signals that are carried along conductor to a speaker. The speaker transforms the electrical signals generated by the microphone into audible signals that are emitted thereby. An acoustic analyzer circuit can be disposed between the microphone and speaker to analyze the acoustic waves (vibration) received by the microphone. The circuit preferably determines the changing data (e.g., changing amplitudes of the waves and the spectral data) of the acoustic waves. The analyzer circuit can generate an output signal that is conveyed to the generator to regulate the amount of energy supplied to the electrode (Col. 8, line 62 to Col. 9, line 9). Clearly, Nardella teaches a method of ablation using ablation feedback to control the ablation power.

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Henry M. Johnson, III/

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TQAS TC3700